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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/686,914	10/12/2000	Daisuke Sato	107258	5369

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EXAMINER
NGUYEN, HAI V

ART UNIT	PAPER NUMBER
2142	8

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No. ●	Applicant(s)
Office Action Summary	09/686,914	SATO ET AL.
	Examiner	Art Unit	
	Hai V. Nguyen	2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *12 October 2000*.
2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-20* is/are pending in the application.
     4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-20* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a)☐ All   b)☐ Some * c)☐ None of:
         1.☐ Certified copies of the priority documents have been received.
         2.☐ Certified copies of the priority documents have been received in Application No. _____.
         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4-7*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____ .

U.S. Patent and Trademark Office
PTOL-326 (Rev. 1-04)   Office Action Summary   Part of Paper No./Mail Date 8

DETAILED ACTION

1.   This Office Action is in response to the application filed on 12 October 2000.

2.   Claims 1-20 are presented for examination.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(b)

that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by **Staats**

US patent No. **5,764,930.**

5.   As to claim 1, Staats teaches a data transfer control device for transferring data

among a plurality of nodes are connected to a bus, the data transfer control device

comprising:

means for starting transfer processing when processing means issues a start command

for data transfer, and for resuming transfer processing when the processing means

issues a resume command for data transfer (Staats, Abstract, col. 1, line 66 – col. 2,

line 5).

cancellation means for canceling an execution of start command or the resume

command, when the processing means issues the start command or the resume

command during a period of a reset that clears node topology information (col. 7, lines

17-40); and

means for informing the processing means that command execution has been canceled

by the reset (col. 7, lines 17-40).

6.   As to claim 2, Staats teaches further comprising: means for issuing an interrupt

with respect to the processing means when an execution of the start command or the

resume command for data transfer is canceled by the occurrence of the reset (Abstract,

col. 7, lines 17-40); and

        factor storage means for informing the processing means of a fact of the interrupt

(priority execution queue, col. 7, lines 40-53).

7.   As to claim 3, Staats teaches, wherein the cancellation means, cancels the start

command or the resume command by using a signal (reference ID) that goes active

during the reset period to mask a signal (destination base address) that goes active

when the processing means issues the start command or the resume command (col. 4,

line 61 – col. 5, line 46).

8.   As to claim 4, Staats teaches, means for pausing transfer processing at a

previously determined location when the processing means issues a data transfer

pause command or when a transfer error occurs (col. 7,lines 17-33).

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10.   Claims 5-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over _

Staats as applied to claims 1-4 above, and further in view of **Klingman** US paten No.

6,219,736 B1.

11.   As to claim 5, Staats does not explicitly disclose, transfer execution means for

executing processing for dividing transfer data into a series of packets then transferring

the divided series of packets continuously, when the processing means issues the start

command for data transfer. Thus, the artisan would have motivated to look into the

related networking art for potential methods and systems for implementing the

transferring the divided series of packets continuously when the processing means

issues the start command for data transfer.

In the same field of endeavor, Klingman, discloses in an analogous art transfer data

network. Klingman discloses that All USB RAM device transfers are page-based. That

is, the USB RAM device includes memory that is divided into 8 pages of 256 bytes

(0x100) each. When data transfer reaches the last byte in a page, 0xNFF, the pointer

will 'wrap' around to the first byte on the page, 0xN00, instead of advancing to the first

byte on the next page, 0x(N+1)00. This limits the damage that errors on one endpoint

can have on other endpoints *(Klingman, col. 21, lines 8-41)*.

Accordingly, it would have been obvious to one of ordinary skill in the networking

computing art at the time the invention was made to have incorporated Klingman'

teachings of page-based device transfer data *(Klingman, Abstract; col. 21, lines 8-41)*

with the teachings of Staats, *for the purpose of limiting the damage that errors on one*

endpoint can have on other endpoints and increasing the speed of bus device

(Klingman, col. 6, lines 35-45; col. 21, lines 35-41).

12.   As to claim 6, Staats-Klingman discloses, wherein the reset is a bus reset as

defined by the IEEE 1394 standard *(Staats, col. 3, lines 14-20).*

13.   As to claim 7, Staats-Klingman discloses a data transfer control device for

transferring data among a plurality of nodes that are connected to a bus, the data

transfer control device comprising:

transfer execution means for executing processing for dividing transfer data into a

series of packets then transferring the divided series of packets continuously, when

processing means issues a start command for data transfer *(Klingman, col. 21, lines 8-*

41); and

pause means for pausing a transfer processing after a step execution of the transfer

processing, when the processing means issues a resume command and a pause

command for data transfer together *(Staats, col. 5, lines 3-45).*

14.   As to claim 8, Staats-Klingman discloses, wherein the pause means executes the

step execution and the pause of the transfer processing based on a resume signal that

goes active when the resume command is issued. and a delay pause signal that goes

active after a delay of a given period after the resume signal goes active when the

resume command and the pause command are issued together *(Staats, col. 4, line 61 –*

col. 5, line 46).

15.   Claims 9, 10 are similar limitation of claim 6; therefore, it is rejected under the

same rationale as in claim 6.

16.   As to claim 11, Staats-Klingman discloses, a device for performing given processing on data that has been received from another node via the data transfer control device and the bus; and a device for outputting or storing data that has been subjected to the processing *(Klingman, Abstract, col. 6, line 45 – col. 7, line 55)*.

17.   Claims 12-15 are similar limitations of claim 11; therefore, they are rejected under the same rationale as in claim 11.

18.   As to claim 16, Staats-Klingman discloses, a device for performing given processing on data that has been received from another node via the data transfer control device and the bus; and a device for fetching data to be subjected to the processing *(Klingman, Abstract, col. 6, line 45 – col. 7, line 55)*.

19.   Claims 17-20 are similar limitations of claim 16; therefore, they are rejected under the same rationale as in claim 16.

20.   Further references of interest are cited on Form PTO-892, which is an

attachment to this action.

21.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Hai V. Nguyen whose telephone number is 703-306-

0276. The examiner can normally be reached on 6:00-3:30 Mon-Fri.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jack Harvey can be reached on 703-305-9705. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

        Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

JACK D. HARVEY
SUPERVISORY PATENT EXAMINER

Hai V. Nguyen
Examiner
Art Unit 2142